

ABSTRACT

A method is disclosed for recovering data from a RAID system after a transient failure. After a transient failure, the cause of the failure is corrected and a user initiates a trust array command. The RAID controller receives the trust array command and performs several modifications to the disk metadata. First, the partition age metadata field is synchronized. Second, the primary dead partition map metadata field is cleared. Third, the partition status metadata field is set to initialized. Following the metadata modifications, the RAID controller verifies that it can access all of the drives in the array. If all drives are accessible, the array is on-line and fault tolerant without the need for re-constructing a drive within the array, or re-creating the array. If one drive remains inaccessible, data is available from the array, and the array is in a critical state. If two or more drives remain inaccessible, the array remains off-line and a partial recovery may be attempted. The trust array command may, in certain instances, be initiated automatically by the RAID system without any user involvement.

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